



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,456	08/04/2006	Koichi Ebata	070639-0149	5744

22428 7590 01/15/2010
FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

MAPA, MICHAEL Y

ART UNIT	PAPER NUMBER
----------	--------------

2617

MAIL DATE	DELIVERY MODE
-----------	---------------

01/15/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,456	Applicant(s) EBATA, KOICHI	
	Examiner Michael Mapa	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/04/09 has been entered.

Response to Amendment

2. The applicant has amended the following:

Claims: 1-2, 7-8, 15-16 and 21-22 have been amended.

Claims: 3-6, 9-14, 17-20 and 23-26 have not been amended.

Response to Arguments

3. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

Art Unit: 2617

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 15-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 15-20 states "a computer program product embodied on a computer readable storage medium", however, the original disclosure and specification does provide support to the claim limitation "a computer program product" and is therefore considered as new matter.

Appropriate Correction is required.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15-20 states “a computer program product embodied on a computer readable storage medium”, however, the original disclosure and specification does not provide support to the claim limitation “a computer program product” and is therefore considered as indefinite since the original disclosure does not specify as to what the computer program product can be.

Appropriate Correction is required.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 15-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 15-20 states “a computer program product embodied on a computer readable storage medium”, however, the original specification does not provide support as to what “a computer program product” and “computer readable storage medium” is. Therefore, since a computer program product and computer readable storage medium can be a signal or a waveform and would therefor be regarded as nonstatutory subject matter, claims 15-20 are rejected as claims claiming non-statutory subject matter. For the purpose of the examination and the rejection provided below, the examiner will interpret claims 15-20 as not having a 101 rejection. The examiner suggests the

Art Unit: 2617

applicant amend the claims to read as "a computer program embodied on a non transitory computer readable medium".

Appropriate Correction is required.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-5, 7-11, 13-19 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siddiqi et al. (US Patent 7362742 herein after referenced as Siddiqi) in view of Fukutomi (US Patent Publication 2003/0012202 herein after referenced as Fukutomi).

Regarding claim 1, Siddiqi discloses:

The applicant claims "A monitor apparatus of a wireless network, comprising: a means connected to an access point of the wireless network via a network, said means configured to receive packet transfer information retained in said access point and extract an address of which a transfer destination is a wireless interface from said packet transfer information" (Fig. 6 & Column 4, Lines 65 – Column 5, Lines 1-6 & Column 6, Lines 20-25 & Column 7, Lines 55-61 & Column 9, Lines 15-24 & Lines 37-45 of Siddiqi, wherein Siddiqi discloses a second AAP (authoritative access point)

Art Unit: 2617

sending AP (access point) information such as a subnet mapping table to a first AAP and wherein the first AAP attempts to add entries from the received subnet mapping table ("packet transfer information") to its own subnet mapping table by first comparing and determining if there are additional items in the received subnet mapping table that are not in the stored subnet mapping table of the first AAP and then determining whether the AP ("wireless interface transfer destination") IP address is stored in its subnet mapping table and then confirming that the entry is still active and reachable).

The applicant claims "and an estimating means for estimating that a terminal having said extracted address exists as a subordinate of the access point retaining said packet transfer information" (Fig. 4 & Column 5, Lines 1-7 & Column 7, Lines 40-41 & 55-61 & Column 8, Lines 25-34 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs as well as disclosing determining that the AP identified in that entry is still alive and is reachable before adding the entry to the first AAPs subnet mapping table, therefore estimating that a terminal (AP identified) having said extracted address exists as a subordinate of the access point retaining said packet transfer information).

Siddiqi fails to explicitly recite "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information."

In a related field of endeavor, Fukutomi discloses:

The applicant claims "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information" (Fig. 2 & Fig. 4 &

Art Unit: 2617

Paragraph [0032]-[0034] of Fukutomi, wherein Fukutomi discloses the mapping table storing information such as IP addresses, destination address and the output ports).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Siddiqi to incorporate the teachings of Fukutomi of having a mapping table containing information such as the destination address and the corresponding port of the wireless interface for the purpose of improving the system by providing a more complete and in depth information on how to route the packets and what port to use, thereby ensuring the packets are routed and lowering the processing time of the system by not having to discover the status of the destination terminal but just using the subnet mapping table to identify the corresponding information.

Regarding claim 2, Siddiqi discloses:

The applicant claims "A monitor apparatus of a wireless network, comprising: a means connected to an access point of the wireless network via a network, said means configured to receive packet transfer information retained in said access point and extract an address of which a transfer destination is a wireless interface from said packet transfer information" (Fig. 6 & Column 4, Lines 65 – Column 5, Lines 1-6 & Column 6, Lines 20-25 & Column 7, Lines 55-61 & Column 9, Lines 15-24 & Lines 37-45 of Siddiqi, wherein Siddiqi discloses a second AAP (authoritative access point) sending AP (access point) information such as a subnet mapping table to a first AAP and wherein the first AAP attempts to add entries from the received subnet mapping table ("packet transfer information") to its own subnet mapping table by first comparing and determining if there are additional items in the received subnet mapping table that

are not in the stored subnet mapping table of the first AAP and then determining whether the AP ("wireless interface transfer destination") IP address is stored in its subnet mapping table and then confirming that the entry is still active and reachable).

The applicant claims "and a determining means for investigating an operation situation of a terminal having said extracted address to determine that said terminal having said extracted address has a connection with the access point retaining said packet transfer information in a case where said terminal having said address is in operation" (Fig. 4 & Column 5, Lines 1-7 & Column 7, Lines 40-41 & 55-61 of Siddiqi & Column 8, Lines 25-34 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs as well as disclosing determining that the AP identified in that entry is still alive and is reachable before adding the entry to the first AAPs subnet mapping table, therefore determining an operation situation of a terminal (AP identified), whether ALIVE or not or can be reached or not, having said extracted address has a connection with the access point retaining said packet transfer information).

Siddiqi fails to explicitly recite "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information."

In a related field of endeavor, Fukutomi discloses:

The applicant claims "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information" (Fig. 2 & Fig. 4 & Paragraph [0032]-[0034] of Fukutomi, wherein Fukutomi discloses the mapping table storing information such as IP addresses, destination address and the output ports).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Siddiqi to incorporate the teachings of Fukutomi of having a mapping table containing information such as the destination address and the corresponding port of the wireless interface for the purpose of improving the system by providing a more complete and in depth information on how to route the packets and what port to use, thereby ensuring the packets are routed and lowering the processing time of the system by not having to discover the status of the destination terminal but just using the subnet mapping table to identify the corresponding information.

Regarding claim 3, Siddiqi in view of Fukutomi discloses:

The applicant claims "The monitor apparatus of a wireless network according to claim 2, further comprising: a managed terminal list having an address of a terminal, which is a target of management, registered" (Fig. 4, & Column 8, Lines 24-33 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table storing a plurality of entries each storing AP information).

The applicant claims "and a determining means for comparing said extracted address with an address described in said managed terminal list" (Fig. 6 & Column 9, Lines 43-46 of Siddiqi, wherein Siddiqi discloses the AAP receiver checking and determining if the AP IP address is stored in its own subnet mapping table).

The applicant claims "and for, in a case where said extracted address is not included in said managed terminal list, determining that an access to the access point retaining said packet transfer information has been made by a terminal that is not a target of management" (Fig. 6 & Column 9, Lines 43-46 & Lines 53-58 of Siddiqi,

Art Unit: 2617

wherein Siddiqi discloses the AAP receiver checking if the AP IP address is in its subnet mapping table and if it is not included within the subnet mapping table of the AAP receiver sending an ALIVE packet to determine if the AP is active).

Regarding claim 4, Siddiqi in view of Fukutomi discloses:

The applicant claims "The monitor apparatus of a wireless network according to claim 2, further comprising: a means for drawing a result on a relation between an access point and terminals, which are estimated to be existent as subordinates of said access point, or are determined to be in connection with said access point" (Fig. 6 & Column 9, Lines 53-58 of Siddiqi, wherein Siddiqi discloses the AAP receiver sending an ALIVE packet to the AP IP address which was identified under the sending AAP subnet mapping table to determine if the AP is active, if the AP is active it will send an ALIVE ACK back to the receiver AAP).

The applicant claims "for all the access points under management thereof to display a relation between each access point and each terminal that is estimated to be existent as a subordinate of each access point, or each terminal that is determined to be in connection with each access point" (Fig. 4 & Column 8, Lines 24-43 of Siddiqi, wherein Siddiqi discloses the subnet mapping table being maintained by the AAP to contain AP information such as subnet mask and IP address).

Regarding claim 5, Siddiqi in view of Fukutomi discloses:

The applicant claims "The monitor apparatus of a wireless network according to claim 2, characterized in, in a case where the address of the identical terminal has been described in said packet transfer information retained by plural access points" (Column

Art Unit: 2617

10, Lines 35-40 & Column 8, Lines 48-50 of Siddiqi, wherein Siddiqi discloses the synchronization operation performed by the AAPs is done so that every AP in the entire network will have the same copy of the table and wherein Siddiqi discloses the AP being initially configured with one or more AAP).

The applicant claims "a means for, from among said packet transfer information, selecting the packet transfer information retained by the access point belonging to an identical subnet to that of said terminal" (Column 7, Lines 17-18 & Column 9, Lines 37-45 of Siddiqi, wherein Siddiqi discloses that the AAP and all other APs maintain identical subnet mapping tables and wherein Siddiqi discloses the receiver AAP attempting to add entries from the received subnet mapping table to its own subnet mapping table and determines if the AP IP address is already stored in its own mapping table).

The applicant claims "a means for, in a case where said selected packet transfer information retained by the access point belongs to the identical subnet to that of said terminal, and yet the number thereof is only one" (Column 8, Lines 48-50 of Siddiqi, wherein Siddiqi discloses the AP being initially configured with one or more AAP).

The applicant claims "estimating that said terminal exists as a subordinate of said one access point" (Fig. 4 & Column 8, Lines 25-34 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs).

The applicant claims "for, in a case where said access point belongs to the identical subnet to that of said terminal, and yet the number thereof is plural" (Column 8,

Art Unit: 2617

Lines 48-50 of Siddiqi, wherein Siddiqi discloses the AP being initially configured with one or more AAP).

The applicant claims "estimating that said terminal exists as an subordinate of one of said plurality of said access points" (Fig. 4 & Column 8, Lines 25-34 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs).

Regarding claim 7, Siddiqi discloses:

The applicant claims "A monitor system of a wireless network, said monitor system comprising: at least one access point of a wireless network; at least one terminal of the wireless network" (Column 7, Lines 17-18 of Siddiqi, wherein Siddiqi discloses an AAP (access point) and an AP (terminal)).

The applicant claims "and a monitor apparatus connected to said access point via a network, wherein in said monitor apparatus comprises: a means for receiving packet transfer information retained in said access point and extracting an address of which a transfer destination is a wireless interface from said packet transfer information" (Fig. 6 & Column 4, Lines 65 – Column 5, Lines 1-6 & Column 6, Lines 20-25 & Column 7, Lines 55-61 & Column 9, Lines 15-24 & Lines 37-45 of Siddiqi, wherein Siddiqi discloses a second AAP (authoritative access point) sending AP (access point) information such as a subnet mapping table to a first AAP and wherein the first AAP attempts to add entries from the received subnet mapping table ("packet transfer information") to its own subnet mapping table by first comparing and determining if there are additional items in the received subnet mapping table that are not in the stored

Art Unit: 2617

subnet mapping table of the first AAP and then determining whether the AP ("wireless interface transfer destination") IP address is stored in its subnet mapping table and then confirming that the entry is still active and reachable).

The applicant claims "and an estimating means for estimating that said terminal having said extracted address exists as a subordinate of the access point retaining said packet transfer information" (Fig. 4 & Column 5, Lines 1-7 & Column 7, Lines 40-41 & 55-61 & Column 8, Lines 25-34 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs as well as disclosing determining that the AP identified in that entry is still alive and is reachable before adding the entry to the first AAPs subnet mapping table, therefore estimating that a terminal (AP identified) having said extracted address exists as a subordinate of the access point retaining said packet transfer information).

Siddiqi fails to explicitly recite "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information."

In a related field of endeavor, Fukutomi discloses:

The applicant claims "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information" (Fig. 2 & Fig. 4 & Paragraph [0032]-[0034] of Fukutomi, wherein Fukutomi discloses the mapping table storing information such as IP addresses, destination address and the output ports).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Siddiqi to incorporate the teachings of Fukutomi of having a mapping table containing information such as the destination address and the corresponding port

Art Unit: 2617

of the wireless interface for the purpose of improving the system by providing a more complete and in depth information on how to route the packets and what port to use, thereby ensuring the packets are routed and lowering the processing time of the system by not having to discover the status of the destination terminal but just using the subnet mapping table to identify the corresponding information.

Regarding claim 8, Siddiqi discloses:

The applicant claims "A monitor system of a wireless network, said monitor system comprising: at least one access point of the wireless network; at least one terminal of the wireless network" (Column 7, Lines 17-18 of Siddiqi, wherein Siddiqi discloses an AAP (access point) and an AP (terminal)).

The applicant claims "and a monitor apparatus connected to said access point via a network, wherein said monitor apparatus comprises: a means for receiving packet transfer information retained in said access point and extracting an address of which a transfer destination is a wireless interface from said packet transfer information" (Fig. 6 & Column 4, Lines 65 – Column 5, Lines 1-6 & Column 6, Lines 20-25 & Column 7, Lines 55-61 & Column 9, Lines 15-24 & Lines 37-45 of Siddiqi, wherein Siddiqi discloses a second AAP (authoritative access point) sending AP (access point) information such as a subnet mapping table to a first AAP and wherein the first AAP attempts to add entries from the received subnet mapping table ("packet transfer information") to its own subnet mapping table by first comparing and determining if there are additional items in the received subnet mapping table that are not in the stored subnet mapping table of the first AAP and then determining whether the AP ("wireless

Art Unit: 2617

interface transfer destination”) IP address is stored in its subnet mapping table and then confirming that the entry is still active and reachable).

The applicant claims "and a determining means for investigating an operation situation of said terminal having said extracted address to determine that said terminal having said extracted address has a connection with the access point retaining said packet transfer information in a case where said terminal having said address is in operation" (Fig. 4 & Column 5, Lines 1-7 & Column 7, Lines 40-41 & 55-61 of Siddiqi & Column 8, Lines 25-34 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs as well as disclosing determining that the AP identified in that entry is still alive and is reachable before adding the entry to the first AAPs subnet mapping table, therefore determining an operation situation of a terminal (AP identified), whether ALIVE or not or can be reached or not, having said extracted address has a connection with the access point retaining said packet transfer information).

Siddiqi fails to explicitly recite "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information."

In a related field of endeavor, Fukutomi discloses:

The applicant claims "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information" (Fig. 2 & Fig. 4 & Paragraph [0032]-[0034] of Fukutomi, wherein Fukutomi discloses the mapping table storing information such as IP addresses, destination address and the output ports).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Siddiqi to incorporate the teachings of Fukutomi of having a mapping table containing information such as the destination address and the corresponding port of the wireless interface for the purpose of improving the system by providing a more complete and in depth information on how to route the packets and what port to use, thereby ensuring the packets are routed and lowering the processing time of the system by not having to discover the status of the destination terminal but just using the subnet mapping table to identify the corresponding information.

Regarding claim 9, Siddiqi in view of Fukutomi discloses "The monitor system of a wireless network according to claim 8." The examiner rejects claim 9 with the same arguments provided above (see claim 3).

Regarding claim 10, Siddiqi in view of Fukutomi discloses "The monitor system of a wireless network according to claim 8." The examiner rejects claim 10 with the same arguments provided above (see claim 4).

Regarding claim 11, Siddiqi in view of Fukutomi discloses "The monitor system of a wireless network according to claim 8." The examiner rejects claim 11 with the same arguments provided above (see claim 5).

Regarding claim 13, Siddiqi in view of Fukutomi discloses:

The applicant claims "The monitor system of a wireless network according to claim 8, wherein: said terminal includes a means for transmitting a broadcast packet; and said access point includes a means for updating the packet transfer information that the access point retains based upon said broadcast packet" (Fig. 5 & Column 8, Lines

Art Unit: 2617

44-60 of Siddiqi, wherein Siddiqi discloses the AP sending an ADD or REMOVE message to the AAP and wherein when the AP shuts down it sends a REMOVE message requesting that its IP address be removed from the subnet mapping table of the AAP).

Regarding claim 14, Siddiqi in view of Fukutomi discloses:

The applicant claims "The monitor system of a wireless network according to claim 8, wherein said access point further comprises: a means for notifying to the other access point information as to which access point to which the terminal belongs" (Fig. 6 & Column 9, Lines 16-24 of Siddiqi, wherein Siddiqi discloses a second AAP sending AP information such as its subnet mapping table to a first AAP).

The applicant claims "and a means for updating the packet transfer information that the access point retains based upon said information as to which access point to which said terminal belongs" (Fig. 6 & Column 34-50, wherein Siddiqi discloses the AAP receiver updating its own subnet mapping table by adding the entries from the received subnet mapping table that are not already in its own subnet mapping table).

Regarding claim 15, Siddiqi discloses:

The applicant claims "A computer program product embodied on a computer-readable storage medium" (Column 10, Lines 53-58 of Siddiqi, wherein Siddiqi discloses that a software implementation of the techniques of the invention is stored in a general-purpose programmable machine).

The applicant claims "comprising: computer code for receiving packet transfer information retained in said access point and extracting an address of which a transfer

Art Unit: 2617

destination is a wireless interface from said packet transfer information” (Fig. 6 & Column 4, Lines 65 – Column 5, Lines 1-6 & Column 6, Lines 20-25 & Column 7, Lines 55-61 & Column 9, Lines 15-24 & Lines 37-45 of Siddiqi, wherein Siddiqi discloses a second AAP (authoritative access point) sending AP (access point) information such as a subnet mapping table to a first AAP and wherein the first AAP attempts to add entries from the received subnet mapping table (“packet transfer information”) to its own subnet mapping table by first comparing and determining if there are additional items in the received subnet mapping table that are not in the stored subnet mapping table of the first AAP and then determining whether the AP (“wireless interface transfer destination”) IP address is stored in its subnet mapping table and then confirming that the entry is still active and reachable).

The applicant claims "and computer code for estimating that a terminal having said extracted address exists as a subordinate of the access point retaining said packet transfer information” (Fig. 4 & Column 5, Lines 1-7 & Column 7, Lines 40-41 & 55-61 & Column 8, Lines 25-34 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs as well as disclosing determining that the AP identified in that entry is still alive and is reachable before adding the entry to the first AAPs subnet mapping table, therefore estimating that a terminal (AP identified) having said extracted address exists as a subordinate of the access point retaining said packet transfer information).

Siddiqi fails to explicitly recite “an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information.”

In a related field of endeavor, Fukutomi discloses:

The applicant claims "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information" (Fig. 2 & Fig. 4 & Paragraph [0032]-[0034] of Fukutomi, wherein Fukutomi discloses the mapping table storing information such as IP addresses, destination address and the output ports).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Siddiqi to incorporate the teachings of Fukutomi of having a mapping table containing information such as the destination address and the corresponding port of the wireless interface for the purpose of improving the system by providing a more complete and in depth information on how to route the packets and what port to use, thereby ensuring the packets are routed and lowering the processing time of the system by not having to discover the information/status of the destination terminal but just using the subnet mapping table to identify the corresponding information/status.

Regarding claim 16, Siddiqi discloses:

The applicant claims "A computer program product embodied on a computer-readable storage medium" (Column 10, Lines 53-58 of Siddiqi, wherein Siddiqi discloses that a software implementation of the techniques of the invention is stored in a general-purpose programmable machine).

The applicant claims "comprising: computer code for receiving packet transfer information retained in said access point and extracting an address of which a transfer destination is a wireless interface from said packet transfer information" (Fig. 6 & Column 4, Lines 65 – Column 5, Lines 1-6 & Column 6, Lines 20-25 & Column 7, Lines

Art Unit: 2617

55-61 & Column 9, Lines 15-24 & Lines 37-45 of Siddiqi, wherein Siddiqi discloses a second AAP (authoritative access point) sending AP (access point) information such as a subnet mapping table to a first AAP and wherein the first AAP attempts to add entries from the received subnet mapping table ("packet transfer information") to its own subnet mapping table by first comparing and determining if there are additional items in the received subnet mapping table that are not in the stored subnet mapping table of the first AAP and then determining whether the AP ("wireless interface transfer destination") IP address is stored in its subnet mapping table and then confirming that the entry is still active and reachable).

The applicant claims "and computer code for investigating an operation situation of a terminal having said extracted address to determine that said terminal having said extracted address has a connection with the access point retaining said packet transfer information in a case where said terminal having said address is in operation" (Fig. 4 & Column 5, Lines 1-7 & Column 7, Lines 40-41 & 55-61 & Column 8, Lines 25-34 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs as well as disclosing determining that the AP identified in that entry is still alive and is reachable before adding the entry to the first AAPs subnet mapping table, therefore determining an operation situation of a terminal (AP identified), whether ALIVE or not or can be reached or not, having said extracted address has a connection with the access point retaining said packet transfer information).

Siddiqi fails to explicitly recite "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information."

In a related field of endeavor, Fukutomi discloses:

The applicant claims "an address of which a transfer destination is a port bound to a wireless interface from said packet transfer information" (Fig. 2 & Fig. 4 & Paragraph [0032]-[0034] of Fukutomi, wherein Fukutomi discloses the mapping table storing information such as IP addresses, destination address and the output ports).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Siddiqi to incorporate the teachings of Fukutomi of having a mapping table containing information such as the destination address and the corresponding port of the wireless interface for the purpose of improving the system by providing a more complete and in depth information on how to route the packets and what port to use, thereby ensuring the packets are routed and lowering the processing time of the system by not having to discover the status of the destination terminal but just using the subnet mapping table to identify the corresponding information.

Regarding claim 17, Siddiqi in view of Fukutomi discloses "The computer program product according to claim 16." The apparatus/system claims disclosed above performs the functionalities that correspond to the computer program product claim, therefore the examiner rejects claim 17 with the same arguments provided above (see claim 3).

Regarding claim 18, Siddiqi in view of Fukutomi discloses "The computer program product according to claim 16." The apparatus/system claims disclosed above performs the functionalities that correspond to the computer program product claim,

Art Unit: 2617

therefore the examiner rejects claim 18 with the same arguments provided above (see claim 4).

Regarding claim 19, Siddiqi in view of Fukutomi discloses “The computer program product according to claim 16.” The apparatus/system claims disclosed above performs the functionalities that correspond to the computer program product claim, therefore the examiner rejects claim 19 with the same arguments provided above (see claim 5).

Regarding claim 21, Siddiqi discloses:

The applicant claims "A monitor method of a wireless network for managing a terminal, comprising: extracting an address of which a transfer destination is a wireless interface from packet transfer information that an access point of the wireless network retains" (Fig. 6 & Column 4, Lines 65 – Column 5, Lines 1-6 & Column 6, Lines 20-25 & Column 7, Lines 55-61 & Column 9, Lines 15-24 & Lines 37-45 of Siddiqi, wherein Siddiqi discloses a second AAP (authoritative access point) sending AP (access point) information such as a subnet mapping table to a first AAP and wherein the first AAP attempts to add entries from the received subnet mapping table (“packet transfer information”) to its own subnet mapping table by first comparing and determining if there are additional items in the received subnet mapping table that are not in the stored subnet mapping table of the first AAP and then determining whether the AP (“wireless interface transfer destination”) IP address is stored in its subnet mapping table and then confirming that the entry is still active and reachable).

Art Unit: 2617

The applicant claims "and estimating that a terminal having said extracted address exists as a subordinate of the access point retaining said packet transfer information" (Fig. 4 & Column 5, Lines 1-7 & Column 7, Lines 40-41 & 55-61 & Column 8, Lines 25-34 of Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs as well as disclosing determining that the AP identified in that entry is still alive and is reachable before adding the entry to the first AAPs subnet mapping table, therefore estimating that a terminal (AP identified) having said extracted address exists as a subordinate of the access point retaining said packet transfer information).

Siddiqi fails to explicitly recite "an address of which a transfer destination is a port bound to a wireless interface from packet transfer information that an access point of the wireless network retains."

In a related field of endeavor, Fukutomi discloses:

The applicant claims "an address of which a transfer destination is a port bound to a wireless interface from packet transfer information that an access point of the wireless network retains" (Fig. 2 & Fig. 4 & Paragraph [0032]-[0034] of Fukutomi, wherein Fukutomi discloses the mapping table storing information such as IP addresses, destination address and the output ports).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Siddiqi to incorporate the teachings of Fukutomi of having a mapping table containing information such as the destination address and the corresponding port of the wireless interface for the purpose of improving the system by providing a more complete and in depth information on how to route the packets and what port to use,

Art Unit: 2617

thereby ensuring the packets are routed and lowering the processing time of the system by not having to discover the status of the destination terminal but just using the subnet mapping table to identify the corresponding information.

Regarding claim 22, Siddiqi discloses:

The applicant claims "A monitor method of a wireless network for managing a terminal, comprising: extracting an address of which a transfer destination is a wireless interface from packet transfer information that an access point of the wireless network retains" (Fig. 6 & Column 4, Lines 65 – Column 5, Lines 1-6 & Column 6, Lines 20-25 & Column 7, Lines 55-61 & Column 9, Lines 15-24 & Lines 37-45 of Siddiqi, wherein Siddiqi discloses a second AAP (authoritative access point) sending AP (access point) information such as a subnet mapping table to a first AAP and wherein the first AAP attempts to add entries from the received subnet mapping table ("packet transfer information") to its own subnet mapping table by first comparing and determining if there are additional items in the received subnet mapping table that are not in the stored subnet mapping table of the first AAP and then determining whether the AP ("wireless interface transfer destination") IP address is stored in its subnet mapping table and then confirming that the entry is still active and reachable).

The applicant claims "and investigating an operation situation of a terminal having said extracted address to determine if said terminal having said extracted address has a connection with the access point retaining said packet transfer information in a case where said terminal having said address is in operation" (Fig. 4 & Column 5, Lines 1-7 & Column 7, Lines 40-41 & 55-61 & Column 8, Lines 25-34 of

Art Unit: 2617

Siddiqi, wherein Siddiqi discloses the AAP maintaining a subnet mapping table of subordinate APs as well as disclosing determining that the AP identified in that entry is still alive and is reachable before adding the entry to the first AAPs subnet mapping table, therefore determining an operation situation of a terminal (AP identified), whether ALIVE or not or can be reached or not, having said extracted address has a connection with the access point retaining said packet transfer information).

Siddiqi fails to explicitly recite “an address of which a transfer destination is a port bound to a wireless interface from packet transfer information that an access point of the wireless network retains.”

In a related field of endeavor, Fukutomi discloses:

The applicant claims "an address of which a transfer destination is a port bound to a wireless interface from packet transfer information that an access point of the wireless network retains" (Fig. 2 & Fig. 4 & Paragraph [0032]-[0034] of Fukutomi, wherein Fukutomi discloses the mapping table storing information such as IP addresses, destination address and the output ports).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Siddiqi to incorporate the teachings of Fukutomi of having a mapping table containing information such as the destination address and the corresponding port of the wireless interface for the purpose of improving the system by providing a more complete and in depth information on how to route the packets and what port to use, thereby ensuring the packets are routed and lowering the processing time of the system

Art Unit: 2617

by not having to discover the status of the destination terminal but just using the subnet mapping table to identify the corresponding information.

Regarding claim 23, Siddiqi in view of Fukutomi discloses "The monitor method of a wireless network according to claim 22." The examiner rejects claim 23 with the same arguments provided above (see claim 3).

Regarding claim 24, Siddiqi in view of Fukutomi discloses "The monitor method of a wireless network according to claim 22." The examiner rejects claim 24 with the same arguments provided above (see claim 4).

Regarding claim 25, Siddiqi in view of Fukutomi discloses "The monitor method of a wireless network according to claim 22." The examiner rejects claim 25 with the same arguments provided above (see claim 5).

12. Claims 6, 12, 20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siddiqi et al. (US Patent 7362742 herein after referenced as Siddiqi) in view of Fukutomi (US Patent Publication 2003/0012202 herein after referenced as Fukutomi) and further in view of Kime et al. (US Patent Publication 2005/0060576 herein after referenced as Kime).

Regarding claim 6, Siddiqi in view of Fukutomi discloses:

The applicant claims "The monitor apparatus of a wireless network according to claim 2, characterized in, in a case where the address of the identical terminal has been described in said packet transfer information retained by plural access points" (Column

Art Unit: 2617

10, Lines 35-40 & Column 8, Lines 48-50 of Siddiqi, wherein Siddiqi discloses the synchronization operation performed by the AAPs is done so that every AP in the entire network will have the same copy of the table and wherein Siddiqi discloses the AP being initially configured with one or more AAP).

The applicant claims "including: a means for, from said terminal, acquiring identification information of the wireless network to which said terminal belongs" (Column 7, Lines 48-52 & Lines 63-37 of Siddiqi, wherein the AP sends AP information to the AAP when it first powers up and then the AAP sends the AP information associated with other active APs from the subnet mapping table to the newly active AP).

The applicant claims "and a means for determining that said terminal has a connection with its access point" (Column 9, Lines 53-55 of Siddiqi, wherein Siddiqi discloses the AAP sending an ALIVE packet to determine if the AP is active).

Siddiqi fails to explicitly recite "a means for comparing identification information of said plural access points with the identification information acquired from said terminal."

In a related field of endeavor, Kime discloses:

The applicant claims "a means for comparing identification information with the identification information acquired from said terminal" (Fig. 3 & Paragraph [0028] wherein Kime discloses comparing the client information such as IP or MAC addresses with information previously stored of authorized clients to determine if an unauthorized client is accessing network resources).

Therefore it would have been obvious for one of ordinary skill in the art to modify the invention of Siddiqi in view of Fukutomi to incorporate an authentication process as

taught by Kime, the reason for the combination being to increase security and to determine and prevent fraudulent and unauthorized access points from accessing the network (Paragraph [0029] of Kime).

Regarding claim 12, Siddiqi in view of Fukutomi discloses "The monitor system of a wireless network according to claim 8." The examiner rejects claim 12 with the same arguments provided above (see claim 6).

Regarding claim 20, Siddiqi in view of Fukutomi discloses "The computer program product according to claim 16." The examiner rejects claim 20 with the same arguments provided above (see claim 6).

Regarding claim 26, Siddiqi in view of Fukutomi discloses "The monitor method of a wireless network according to claim 22." The examiner rejects claim 26 with the same arguments provided above (see claim 6).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Mapa whose telephone number is (571)270-5540. The examiner can normally be reached on MONDAY TO THURSDAY 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571)272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dwayne D. Bost/
Supervisory Patent Examiner,
Art Unit 2617

/Michael Mapa/
Examiner, Art Unit 2617